REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

In response to the rejection of claims 1-9 under 35 U.S.C. §101 for allegedly failing to claim a useful, concrete and tangible result, claim 1 has been amended so as to include a final step of "sending" information to the user. Accordingly, according to the Examiner's comments, this should obviate this ground of rejection.

In response to the rejection of claims 10-16 under 35 U.S.C. §101 because the claims allegedly lack necessary physical articles or objects so as to constitute a machine or manufacture, the specification and claim 10 have been amended to conform to what those ordinarily skilled in this art would clearly understand from reading the applicant's originally filed application papers. Namely, the described method is implemented in the context of a computer system having user input/output ports and a processor executing search engine program code. Indeed, a "temporary storage area of memory" for such a system is explicitly recited in the original specification at page 9, line 31. As will be seen, that physical structure is defined as the "lexical chain blackboard" and is repeatedly referred to throughout the remainder of the specification. Accordingly, the proposed amendments to the specification and claim are not believed to raise any "new matter" issues and entry of same is respectfully requested. Such is also believed to clearly overcome the rejection of claims 10-16 under 35 U.S.C. §101.

The rejection of claims 1, 4, 7-10 and 13-16 under 35 U.S.C. § 103 as allegedly being made "obvious" based on Yun '616 in view of Gong '528 is respectfully traversed.

The Examiner refers to paragraph [0023] of Yun, which discloses using a lexical analyzer generator to convert a query (in "BNF" form) into a "step-query form". From the example in this paragraph, this involves separating a query comprising a compound noun into single nouns using

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Boolean operators and recomposing the query. More generally, it appears that this process simply involves forming a query that can be used by a retrieval system by analyzing words from a user's query one by one.

This does not correspond to what happens according to the applicant's claim 1 wherein a predetermined lexical chaining algorithm is used to derive a lexical chain set from the first user query which comprises one or more lexical chains each of which represents a possible interpretation of the first user query. Claim 1 has been amended above to make it more explicit that each one or more lexical chains represent possible interpretations of said first user query.

The "step-query" formed at this stage in Yun cannot be said to correspond to "a lexical chain representing a possible interpretation" of the original query because it is merely a query that has been separated into components then recomposed with Boolean operators. No "interpretation" has been done, either with or without use of a lexical chaining algorithm.

The advantage of having stored one or more lexical chains each representing a possible interpretation of the first user query becomes apparent once a subsequent related query is required to be processed. By deriving a "subsequent lexical chain set" from the subsequent user query using the lexical chaining algorithm in conjunction with a previously stored lexical chain (which represents a possible interpretation of the first user query), then identifying a subsequent subset of documents using the subsequent lexical chain set, the method according to claim 1 ensures that the subsequent user query may be interpreted in the light of one or more already-stored lexical chains, each of which represents a possible interpretation of the previous user query. It is thus possible for a single hypothesis or multiple hypotheses to be maintained, each of which may be updated progressively in the light of each subsequent related search query.

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As accepted by the Examiner, Yun discloses nothing of relevance to the processing of subsequent queries in the light of the processing performed in respect of previous queries. Instead the Examiner relies upon Gong in relation to this. However, Gong in fact relates to the field of text summarization, which may of course assist a user in performing an information retrieval process more efficiently, but is not itself a corresponding process, in that it does not itself lead to retrieval of information in dependence on a query. Moreover, the "subsequent" steps disclosed in Gong do not correspond to the processing of a "subsequent query" as set out in applicant's claim 1. Instead "successive iterations" may be performed (see paragraphs [0017] and [0043] of Yun, the aim being to retrieve subsequent sentences from a document having successively higher relevance scores. There is no discussion of the processing of a "subsequent query" in a manner dependent on the processing of a previous query.

Also, referring to paragraph [0010] of Yun, (referenced by the Examiner in relation to the processing of a "subsequent query"), sentences are said to be selected from documents until all phrases in "the query" are represented. This paragraph is in fact a discussion of prior art to the Yun approach, but it will be noted that this does not therefore involve related processing of more than one query (as would be required for this to be of relevance to applicant's claims). Again there is no discussion of the processing of a "subsequent query".

The rejection of claims 2-3, 5-6 and 11-12 under 35 U.S.C. §103 as allegedly being made "obvious" based on Yun/Gong in further view of Tarquini '517 is also respectfully traversed.

The fundamental deficiencies of both Yun and Gong have been noted above with respect to parent claims. Tarquini does not supply those deficiencies.
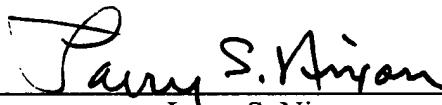
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Tarquini is similarly deficient as to the method and system of applicant's claims, in that it discloses nothing of relevance to the processing of subsequent queries in the light of the processing performed in respect of previous queries.

Given the fundamental deficiencies of all the cited references already noted above, it is not believed necessary at this time to detail additional deficiencies of these references with respect to other features of the rejected claim.

Accordingly, this entire application is now believed to be in allowable condition and a formal notice to that effect is respectfully solicited.

Respectfully submitted,

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